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09/806216

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Docket No. F-6912

Date March 27, 2001

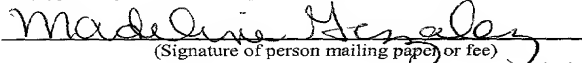
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## THE ASSISTANT COMMISSIONER FOR PATENTS

Washington, D. C. 20231

[ X ] ATTN: BOX PCT

[ X ] THIS IS THE NATIONAL STAGE OF PCT/EP99/09469 FILED December 3, 1999

Sir:

Transmitted herewith for filing is the [ X ] Utility [ ] Design patent application of:

Inventor/Application Identifier: 1) Herbert WEGNER, Arnoldstrasse 17, D-48683 Ahaus, Germany; and  
2) Gottfried KOWALIK, Alfesesch 5, D-48712 Gescher, Germany

For: DEVICE FOR GENERATING AN AEROSOL

Enclosed are:

[ X ] 2 sheets of drawings ( [ X ] formal [ ] informal size A4 ).  
[ X ] 11 pages of specification, including claims and abstract.  
[ X ] 13 total pages

[ ] Combined Declaration/Power of Attorney

[ ] Newly executed

[ ] Copy from prior application

[ ] Inventors deleted; see attached statement

[ ] Incorporation By Reference. The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein

[ ] Sequence Listing

[ ] Computer Readable Copy

[ ] Paper copy

[ ] The undersigned hereby affirms that the content of the paper and computer readable copies of the Sequence Listing are the same.

## CLAIMS FILED

| For                                | Number Filed | Number Extra | Rate      | Basic Fee \$860.00 |
|------------------------------------|--------------|--------------|-----------|--------------------|
| Total Claims                       | 20           | 0 (over 20)  | x \$18.00 |                    |
| Independent Claims                 | 1            | 0 (over 3)   | x \$80.00 |                    |
| [ ] Multiple Dependent Claim       |              |              | \$270.00  |                    |
| [ ] Reduce by 50% for Small Entity |              |              | -         |                    |
| [ X ] Foreign Language Filing Fee  |              |              | \$130.00  | \$130.00           |

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37 CFR 1.16; 37 CFR 1.17; 37 CFR 1.492.

- ☒ Return Receipt Postcard
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- ☐ Assignment to \_\_\_\_\_.
- ☐ Assignment is of record in prior application Serial No. \_\_\_\_\_.
- ☐ Assignment Recordation Form Cover Sheet.
- ☐ Charge \$40.00 to Deposit Account No. 10-1250 for recording Assignment.
- ☐ Information Disclosure Statement and/or Information Disclosure Citation
- ☐ English translation
- ☐ Small Entity Status is asserted
- ☐ Applicant hereby claims the benefit of the filing date of the following provisional application(s) under the provisions of 35 USC 119.
- ☒ Applicant hereby claims the benefit of the filing date of the following applications under the provisions of 35 USC 119 of which certified copies ☐ will follow ☐ are enclosed ☒ have been filed in the International Bureau ☐ were filed in prior application No. \_\_\_\_\_.

**Japan Patent Application No. 298 21 687.6, filed December 5, 1998.**

- ☐ This is a ☐ continuation ☐ divisional ☐ continuation-in-part of prior application Serial No. \_\_\_\_\_.
- ☐ Cancel in this application original claims \_\_\_\_\_ of the prior application before calculating the filing fee.
- ☐ Amend the specification by inserting before the first line the sentence:  
--This is a ☐ continuation, ☐ division, ☐ continuation-in-part, of application Serial No. \_\_\_\_\_, filed \_\_\_\_\_, --
- ☒ Copy of the cover page International Publication (WO 00/33967).
- ☒ Copy of the International application (PCT/IPEA/409).

JORDAN AND HAMBURG LLP

By   
Frank J. Jordan  
Reg. No. 20,456  
Attorney for Applicants

**DECLARATION TO FOLLOW**

F-6912

BOX PCT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Herbert WEGNER et al.  
Serial No. : 09/806,216  
Filed : March 27, 2001  
Title : DEVICE FOR GENERATING AN AEROSOL  
Group Art Unit : (Not yet known)  
Examiner : (Not yet known)

Certificate of Express Mailing Under 37 CFR 1.10

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Madeline Gonzalez

Assistant Commissioner  
for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT (A)**

Sir:

Preliminary to examination, please amend the above-identified patent application as follows:

**IN THE SPECIFICATION:**

Please replace indicated paragraphs of the specification with replacement paragraphs presented indicated below. Appendix II is attached hereto having marked versions of said indicated paragraphs with amendments indicated by brackets and underlining.

Page 1: Between the Title and the first full paragraph, insert the following heading:

**BACKGROUND OF THE INVENTION**

1<sup>st</sup> full paragraph, change to read as follows:

The invention relates to an apparatus for producing an aerosol.

2<sup>nd</sup> full paragraph, change to read as follows:

The invention is concerned with the problem of creating an apparatus, which is constructed simply, has a high output and produces a particularly homogeneous aerosol.

Between the 2<sup>nd</sup> and 3<sup>rd</sup> full paragraph, insert the following heading:

## **SUMMARY OF THE INVENTION**

4<sup>th</sup> full paragraph, change to read as follows:

Further details and effects arise out of the following description and the drawing, in which diagrammatic examples of the inventive aerosol generator are illustrated.

Between the 4<sup>th</sup> and 5<sup>th</sup> full paragraph, insert the following heading:

## **IN THE DRAWINGS**

5<sup>th</sup> full paragraph, change to read as follows:

Figure 1 shows a diagrammatic representation of a first embodiment of an inventive aerosol generator, and

Page 2: Between the 1<sup>st</sup> and 2<sup>nd</sup> full paragraph, insert the following heading:

## **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

**IN THE CLAIMS:**

Please amend the claims as shown rewritten below with amendments effected therein. Appendix I is attached hereto having marked versions of said claims with amendments indicated by brackets and underlining.

5. (Amended) The apparatus of one of the claims 1 to 3, wherein the atomizing container (1) has a basic cylindrical shape.

6. (Amended) The apparatus of one of the claims 1 to 3, wherein the container (1) is connected at the bottom with the upper end of a measuring container (11) for the liquid component of the aerosol.

11. (Amended) The apparatus of claims 8 or 9, wherein a heating unit (24) is connected in the supplying pipeline (6) for the gaseous component.

12. (Amended) The apparatus of claims 8 or 9, wherein a heating unit (29) is connected in a discharging pipeline (22) connected to the upper end of an atomizing container (1).

13. (Amended) The apparatus of claims 8 or 9, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the supplying pipeline (6) for the gaseous component.

14. (Amended) The apparatus of claims 8 or 9, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the discharging pipeline .

15. (Amended) The apparatus of one of the claims 1 to 3, 8 or 9, wherein a connecting line (14), enclosing a pump (15), emerges from the lower end of the measuring container (11), is passed into the atomizing container (1) and carries the atomizing nozzle (8) at its end.

16. (Amended) The apparatus of claims 1 to 3, 8 or 9, wherein the measuring container (11) is connected in the region of its lower end to a reservoir (17) for the liquid component of the aerosol.

17. (Amended) The apparatus of one of the claims 1 to 3, 8 or 9, wherein the measuring container (11) has level contacts (19), which are disposed one above the other for checking the consumption, and limit contacts (20) for

controlling the replenishment and a float (21), which interacts with the level contacts (19) and the limit contacts (20), is provided in the measuring container (11).

19. (Amended) The apparatus of one the claims 1 to 3, 8 or 9, wherein a flow meter (34) is provided in the pipeline (14) connecting the measuring container (11) and the atomizing nozzle (8).

20. (Amended) The apparatus of claim 19, wherein at least one inspection opening, closed off by a sight glass (13), is provided in the side wall of the atomizing container (1).

### REMARKS

Enclosed please find an English translation of the specification, claims and abstract along with a Declaration of Translator and a Notification of Missing Requirements dated July 3, 2001.

The specification has been amended as regards to various typographical, grammatical and idiomatic matters.



**APPENDIX I****AMENDED CLAIMS WITH AMENDMENTS INDICATED THEREIN  
BY BRACKETS AND UNDERLINING**

5. (Amended) The apparatus of one of the claims 1 to [4] 3, wherein the atomizing container (1) has a basic cylindrical shape.

6. (Amended) The apparatus of one of the claims 1 to [5] 3, wherein the container (1) is connected at the bottom with the upper end of a measuring container (11) for the liquid component of the aerosol.

11. (Amended) The apparatus of [one of the claims 8 to 10] claims 8 or 9, wherein a heating unit (24) is connected in the supplying pipeline (6) for the gaseous component.

12. (Amended) The apparatus of [one of the claims 8 to 11] claims 8 or 9, wherein a heating unit (29) is connected in a discharging pipeline (22) connected to the upper end of an atomizing container (1).

13. (Amended) The apparatus of [one of the claims 8 to 12] claims 8 or 9, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the supplying pipeline (6) for the gaseous component.

14. (Amended) The apparatus of [one of the claims 8 to 13] claims 8 or 9, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the discharging pipeline .

15. (Amended) The apparatus of one of the claims 1 to [14] 3, 8 or 9, wherein a connecting line (14), enclosing a pump (15), emerges from the lower end of the measuring container (11), is passed into the atomizing container (1) and carries the atomizing nozzle (8) at its end.

16. (Amended) The apparatus of claims 1 to [15] 3, 8 or 9, wherein the measuring container (11) is connected in the region of its lower end to a reservoir (17) for the liquid component of the aerosol.

17. (Amended) The apparatus of one of the claims 1 to [16] 3, 8 or 9, wherein the measuring container (11) has level contacts (19), which are disposed one above the other for checking the consumption, and limit contacts (20) for

controlling the replenishment and a float (21), which interacts with the level contacts (19) and the limit contacts (20), is provided in the measuring container (11).

19. (Amended) The apparatus of one the claims 1 to [18] 3, 8 or 9, wherein a flow meter (34) is provided in the pipeline (14) connecting the measuring container (11) and the atomizing nozzle (8).

20. (Amended) The apparatus of [one of the claims] claim 19, wherein at least one inspection opening, closed off by a sight glass (13), is provided in the side wall of the atomizing container (1).

**APPENDIX II****AMENDED SPECIFICATION PARAGRAPHS WITH AMENDMENTS  
INDICATED THEREIN BY BRACKETS AND UNDERLINING**

Page 1: Between the Title and the first full paragraph, insert the following heading:

**BACKGROUND OF THE INVENTION**

1<sup>st</sup> full paragraph, change to read as follows:

The invention relates to [a] an apparatus for producing an aerosol [in accordance with the introductory portion of claim 1].

2<sup>nd</sup> full paragraph, change to read as follows:

The invention is concerned with the problem of creating an apparatus, which is constructed simply, has a high output and produces a particularly homogeneous aerosol. [Pursuant to the invention, this objective is accomplished by an apparatus of claim 1. Reference is made to claims 2 to 20 with regard to important further refinements.]

Between the 2<sup>nd</sup> and 3<sup>rd</sup> full paragraph, insert the following heading:

**SUMMARY OF THE INVENTION**

4<sup>th</sup> full paragraph, change to read as follows:

Further details and effects arise out of the following description and the drawing, in which diagrammatic examples of the inventive aerosol generator are illustrated. [In the drawing]

Between the 4<sup>th</sup> and 5<sup>th</sup> full paragraph, insert the following heading:

#### **IN THE DRAWINGS**

5<sup>th</sup> full paragraph, change to read as follows:

Figure 1 shows a diagrammatic representation of a first embodiment of an inventive aerosol generator, and

Page 2: Between the 1<sup>st</sup> and 2<sup>nd</sup> full paragraph, insert the following heading:

#### **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

F-6912

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Herbert WEGNER et al.  
Serial No. : 09/806,216  
Filed : April 25, 2001  
Title : DEVICE FOR GENERATING AN AEROSOL  
Group Art Unit : (Not yet known)  
Examiner : (Not yet known)

DECLARATION OF TRANSLATOR

I, Dr. Walter Herzberg, declare and say:

My address is: 5-21 Elizabeth St.,  
Fair Lawn, N.J. 07410

I speak and write English and German.

I have prepared the attached translation into English of U.S. National Stage of PCT/EP99/09469 filed December 3, 1999.

I hereby certify that the attached translation is a true, exact, and accurate translation of the aforesaid document.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Walter P. Herzberg  
Signature

July 2, 2001  
Date

## APPARATUS FOR PRODUCING AN AEROSOL

The invention relates to a apparatus for producing an aerosol in accordance with the introductory portion of claim 1.

The invention is concerned with the problem of creating an apparatus, which is constructed simply, has a high output and produces a particularly homogeneous aerosol. Pursuant to the invention, this objective is accomplished by an apparatus of claim 1. Reference is made to claims 2 to 20 with regard to important further refinements.

The inventive apparatus, which is intended particularly for producing sterilizing and disinfecting aerosols, as used, for example, for the sterilization of packaging means, such as bottles, has a high output and produces a particularly homogeneous aerosol, which is free of droplets. If it exists, for example, of sterile air and peroxide, it has a high sterilizing and disinfecting power.

Further details and effects arise out of the following description and the drawing, in which diagrammatic examples of the inventive aerosol generator are illustrated. In the drawing

Figure 1 shows a diagrammatic representation of a first embodiment of an inventive aerosol generator and

Figure 2 shows a representation similar to that of Figure 1, of a second embodiment of an inventive aerosol generator.

The apparatus, shown in Figure 1, comprises an atomizing container 1, which has, in the lower region, an annular nozzle 2 as a means of forming an annular, bundled gas stream. The annular nozzle 2 has an outer cylindrical ring part 3 and an inner ring part 4, which is disposed in the outer, cylindrical ring part 3, has the shape of a circular conical section and, together with the outer ring part 3, forms the boundary of a nozzle duct 5, which expands in the upward direction and is closed at its underside. A pipeline 6 for supplying the gaseous component of the aerosol, which preferably consists of heated, sterile air, discharges into the nozzle duct 5. The temperature of the sterile air may be, for example, 60° to 80° C. A shut-off valve indicated at 7, preferably is a membrane valve opens up or shuts off the connection to a source of sterile air, which is not shown. It can be actuated manually or preferably by means of an actuator.

In the midst of the annular nozzle 2, an atomizing nozzle 8 is disposed for the liquid component of the aerosol, which preferably is hydrogen peroxide ( $H_2O_2$ ). The atomizing nozzle 8 may be constructed as a wide slot nozzle and have a nozzle slot 9, which passes radially through a nozzle body 10 and is located approximately at the level of the upper edge of the inner ring part 4 of the annular nozzle 2. Instead, the atomizer nozzle may also have a normal construction with a nozzle duct, which is circular in cross section.



The atomizer container 1 has a basic cylindrical shape. In Figure 1, the bottom of the atomizer container 1 changes over into the upper end of a measuring container 11 for the liquid component for the aerosol, so that the peroxide, depositing at the inside of the atomizing container 1 due to condensation, can run back directly into the measuring container 11. At the lid side, the container 1 is provided with an outlet opening 12 for the aerosol produced. A discharging pipe line 22, leading to the place of use, can be connected to the outlet opening 12. An inspection opening, closed off by a sight glass 13, is provided in the side wall of the atomizing container 1.

A connecting line 14, in which a pump 15, preferably a membrane pump, is connected, comes out of the lower end of the measuring container 11. This connecting line 14 is passed through the side wall of the container into the atomizing container 1 and, at its end, carries the atomizing nozzle 8.

Furthermore, a connecting line 16, which connects the measuring container 11 to a (shown diagrammatically on a smaller scale) reservoir 17 for the liquid component of the aerosol discharges into the lower region of the measuring container 11. A valve 18 in the connection line 16 controls the flow into the measuring container 11. In the construction of Figure 1, the latter has upper and lower limit contacts 20, which are disposed spaced apart above one another, as well as a float 21, which interacts with the limit contacts. The consumption of the liquid aerosol component is checked over the level contacts 19 with the help of the float 21 and the replacement of the liquid aerosol component over the supply valve 18 is controlled over the limit contacts 20.

While the apparatus is being operated, the annular nozzle 2 forms an annular, bundled, upwardly directed current of air, which takes up the mist-like aerosol component emerging from the atomizing nozzle 8 and mixes intimately with this component. The extremely homogeneous aerosol is practically free of droplets at the outlet. The output of the apparatus is high and an aerosol is produced which, when it consists of sterile air and peroxide, offers a high sterilizing and disinfecting effect.

In the construction of Figure 2, the measuring container 11 is set up separately. The lower end of the atomizing container 1 is connected to the supplying pipeline 6 for the gaseous component and, as a means for forming a current of gas, comprises a number of screens, which are disposed one on top of the other and combined into a screen package 23. The individual screens preferably consist of an interwoven mesh of stainless steel wire. As it flows through the screen package 23, the current of gas experiences a cylindrical bundling and is also aligned coaxially to the atomizing nozzle 8, around which an extremely, uniform current of gas is flowing.

The supplying pipeline 6 for the gaseous component starts out from a reservoir, the details of which are not shown and the gaseous content of which, such as sterile air, may be under a specified pressure. On its way to the atomizing container 1, the gaseous component in the supplying pipeline 6 passes through a heating unit 24. The supplying pipeline 6 passes through an elbow 25 laterally into a straight part 26 of an approximately T-shaped connecting piece 27. Moreover, the supplying pipeline 26 is connected below the screen package coaxially to the lower

end of the atomizing container 1 and is connected over a return pipeline 28 with the upper end of the separate measuring container 11 for the liquid component of the aerosol.

A heating unit 29 may also be connected in the discharging pipeline 22, which is connected to the upper end of the atomizing container 1, in order to ensure that the aerosol has the desired temperature when it reaches its place of use, such as a bottle sterilization station.

A shut-off valve 30, which can be actuated preferably by means of an actuator, is provided in the pipeline 6 for the gaseous component. There may also be such a shut-off valve 31 in the discharging pipeline 22 in front of or behind the heating unit 29.

At the bottom, the measuring container 11 is connected over the pipeline 16 to a reservoir for the liquid component of the aerosol which, in the case of the embodiment of Figure 2, is pumped by means of a pump 32, as needed into the measuring container 11. In the case of the embodiment of Figure 2, the measuring container 11 is provided with a capacitive probe 33, which controls re-filling of the measuring container 11, when an appropriate level is reached and, furthermore, enables the consumption of liquid aerosol component to be determined. An accurate determination of the consumption is provided by a flow meter 34, which is connected in the connecting pipeline 14. A venting pipeline is indicated at 35 and a valve-controlled pipeline 36 enables the measuring container 11 to be emptied completely.

When the apparatus is being operated, a droplet-free, fine, uniform aerosol is formed in the atomizing container 1 and can be supplied by the discharging pipeline 22 to the intended use and ensures that the surfaces, which are to be sterilized, are wetted completely there. A cycled aerosol formation process can be carried with the help of the shut-off valve 30. Such a process can also be carried out when the shut-off valve 30 is open and the shut-off valve 31 is opened and closed cyclically. Any condensate, which may have collected in the lower region of the pipeline section 26 is transferred in the latter cyclic operation over the return line 28 into the upper region of the measuring container 11 by the overpressure of the gaseous component in the system. In the event of a cyclic operation with the help of the shut-off valve 30, the measuring container 11 advisably is set up below the connecting part 27, so that the condensate can be returned through pipeline 28 by gravity without requiring a pump.

However, such a return of condensate need be carried out only rarely, since condensate of liquid aerosol components, in normal operation, drains from the atomizing container 1 into the screen package 23 where it is collected, dispersed, and taken up and carried along by the flow of the gaseous component, as soon as there is an appropriate flow.

In the case of a non-cyclic, continues operation, the screen package 23 ensures that, as a rule, the whole of the condensate is retained in the region of the screen package 23, dispersed, and taken up by the gas stream and nothing goes over into the pipeline section 26, from where it would then be returned to the measuring container 11.

## Claims

1. An apparatus for producing an aerosol, consisting of a gaseous component, especially air, such as sterile air, and a liquid component, especially a sterilizing agent such as peroxide, with an atomizing container (1), in which the liquid component is atomized continuously and mixed with the current of gas, passing through the atomizing container (1), wherein an atomizing nozzle (8) for the liquid component of the aerosol is disposed centrally in the lower region of the atomizing container (1) and means (2; 23) for forming an upwardly directed, bundled current of gas, which flows coaxially over the atomizing nozzle (8), are disposed in front of the atomizing nozzle (8).

2. The apparatus of claim 1, wherein an annular nozzle (2), the outlet of which is located approximately at the level of the outlet of the atomizing nozzle (8), is provided as a means of forming a current of gas.

3. The apparatus of claim 2, wherein the annular nozzle (2) comprises a cylindrical outer ring part (3) and an inner ring part (4), which, in the form of a circular conical section, is disposed in an outer ring part (3) and, together with the latter, forms the boundary of an upwardly expanding nozzle channel (5), which is closed off at the bottom and into which a pipeline (6) for supplying the gaseous components of the aerosol discharges radially.

4. The apparatus of one of the claims 1 to 3, wherein the atomizing nozzle (8) is constructed as an air jet, the one nozzle slot (9) of which, passing radially through a spherical nozzle body (10), is located at the level of the upper edge of the inner ring part (4) of the annular nozzle (2).

5. The apparatus of one of the claims 1 to 4, wherein the atomizing container (1) has a basic cylindrical shape.

6. The apparatus of one of the claims 1 to 5, wherein the container (1) is connected at the bottom with the upper end of a measuring container (11) for the liquid component of the aerosol.

7. The apparatus of claims 6, wherein the atomizing container (1) changes over at the bottom directly into the upper end of the measuring container (11).

8. The apparatus of claim 1, wherein the lower end of the atomizing container (1) is connected to the supplying pipeline (6) for the gaseous component encloses screens, which are disposed one above the other, as means of forming the bundled gas current.

9. The apparatus of claim 8, wherein the screens are combined into a screen package (23).

10. The apparatus of claims 8 or 9, wherein the supplying pipeline (6) for the gaseous component discharges over an elbow (25) laterally into a straight part (26) of a pipeline of a connecting piece (27), which is connected below the screen package (23) coaxially to the lower end of the atomizing container (1) and, over a return line (28), with the upper end of a separately set up measuring container (11) for the liquid component of the aerosol.

11. The apparatus of one of the claims 8 to 10, wherein a heating unit (24) is connected in the supplying pipeline (6) for the gaseous component.

12. The apparatus of one of the claims 8 to 11, wherein a heating unit (29) is connected in a discharging pipeline (22) connected to the upper end of an atomizing container (1).

13. The apparatus of one of the claims 8 to 12, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the supplying pipeline (6) for the gaseous component.

14. The apparatus of one of the claims 8 to 13, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the discharging pipeline .

15. The apparatus of one of the claims 1 to 14, wherein a connecting line (14), enclosing a pump (15), emerges from the lower end of the measuring container (11), is passed into the atomizing container (1) and carries the atomizing nozzle (8) at its end.

16. The apparatus of claims 1 to 15, wherein the measuring container (11) is connected in the region of its lower end to a reservoir (17) for the liquid component of the aerosol.

17. The apparatus of one of the claims 1 to 16, wherein the measuring container (11) has level contacts (19), which are disposed one above the other for checking the consumption, and limit contacts (20) for controlling the replenishment and a float (21), which interacts with the level contacts (19) and the limit contacts (20), is provided in the measuring container (11).

18. The apparatus of claim 17, wherein the float (21), over limit contacts (20), controls the actuation of a supplying valve (18) in the pipeline (16), connecting the reservoir (17) and the measuring container (11).

19. The apparatus of one the claims 1 to 18, wherein a flow meter (34) is provided in the pipeline (14) connecting the measuring container (11) and the atomizing nozzle (8).

20. The apparatus of one of the claims 19, wherein at least one inspection opening, closed off by a sight glass (13), is provided in the side wall of the atomizing container (1).



Fig. 1

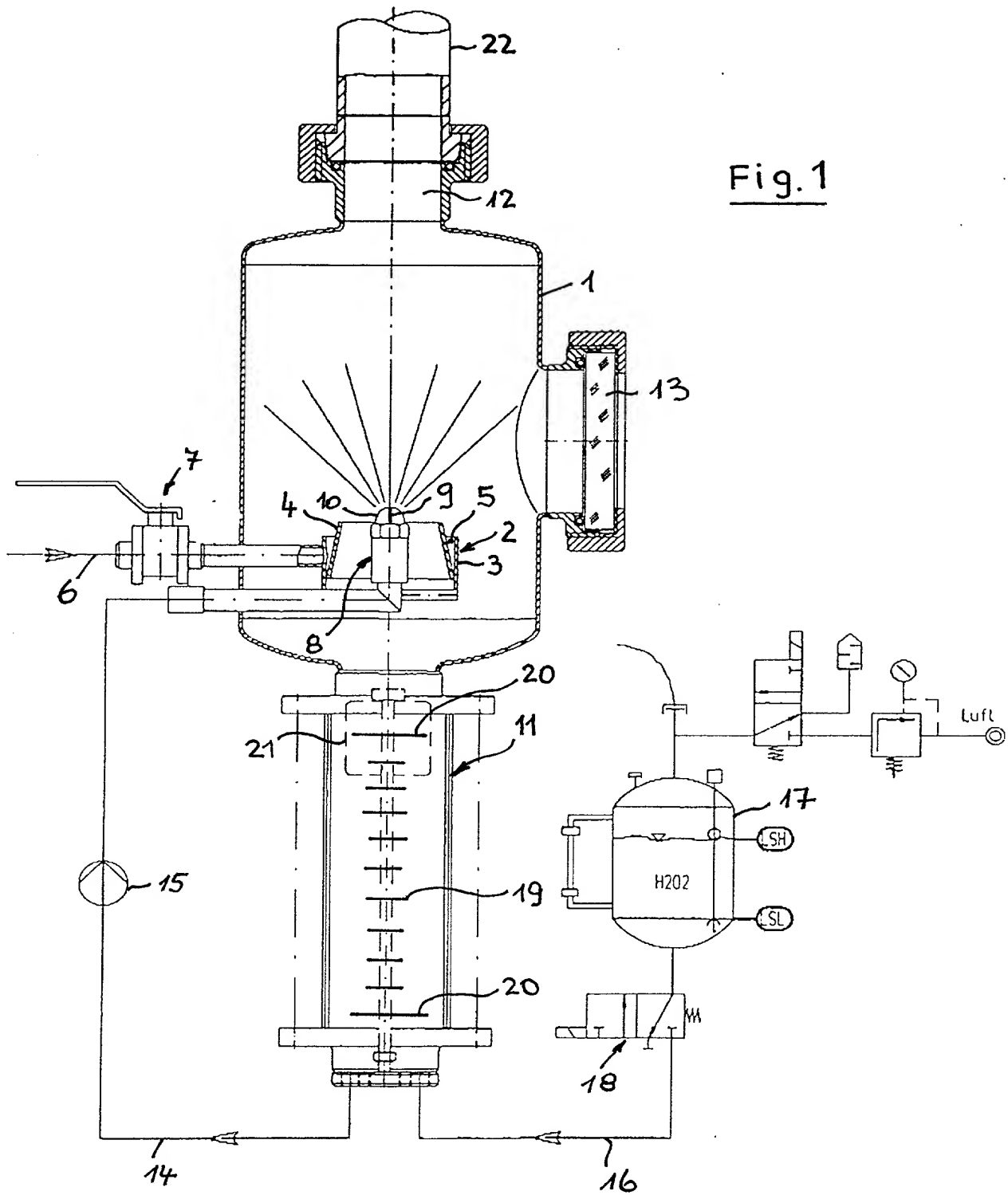
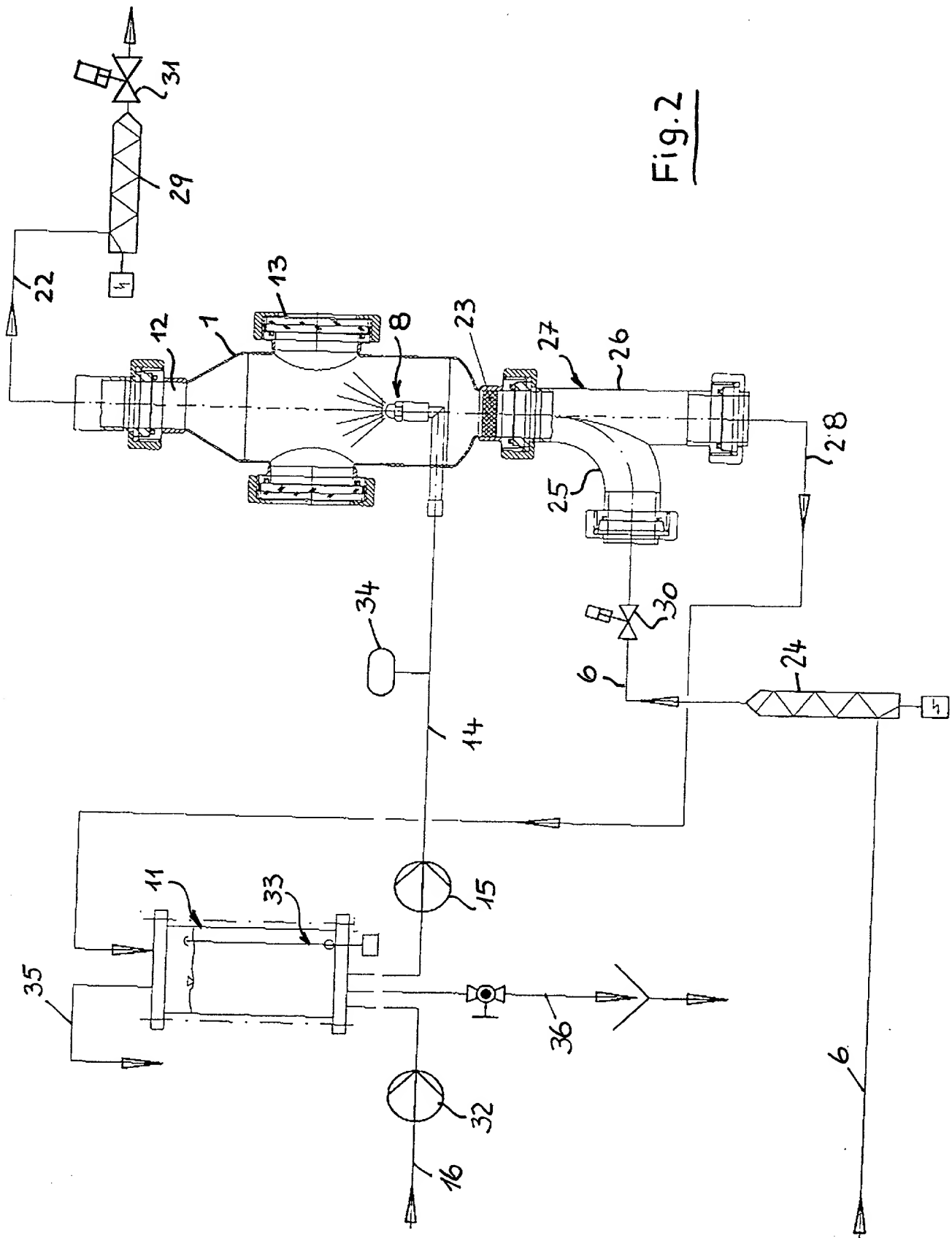


Fig.2



**COMBINED DECLARATION FOR PATENT APPLICATION AND  
POWER OF ATTORNEY**  
(Includes Reference to PCT International Applications)

Attorney's Docket Number

**F-6912**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**DEVICE FOR GENERATING AN AEROSOL**

the specification of which (check only one item below):

- ☐ is attached hereto.
- ☐ was filed as United States application  
Serial No. \_\_\_\_\_,  
on \_\_\_\_\_,  
and was amended  
on \_\_\_\_\_ (if applicable).
- ☒ was filed as PCT international application  
Number **PCT/EP99/09469** \_\_\_\_\_,  
on **December 3, 1999** \_\_\_\_\_,  
and was amended under PCT Article 19  
on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

| PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119: |                    |                                      |   |
|---|--------------------|--------------------------------------|---|
| Country<br>(if PCT indicate "PCT")  | Application Number | Date of Filing<br>(day, month, year) | Priority Claimed<br>Under 35 USC 119                                |
| Germany   | 298 12 687.6       | 12 May 1998                          | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|   |                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|   |                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|   |                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|   |                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

**COMBINED DECLARATION FOR PATENT APPLICATION AND  
POWER OF ATTORNEY (Continued)**  
(Includes Reference to PCT International Applications)

Attorney's Docket Number

F-6912

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

| PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120: |                   |                                       |                    |         |           |
|---|-------------------|---------------------------------------|--------------------|---------|-----------|
| U.S. APPLICATIONS   |                   |                                       | STATUS (Check One) |         |           |
| U.S. Application Number   | U. S. Filing Date |                                       | Patented           | Pending | Abandoned |
|   |                   |                                       |                    |         |           |
|   |                   |                                       |                    |         |           |
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| PCT APPLICATIONS DESIGNATING THE U.S.   |                   |                                       |                    |         |           |
| PCT Application No.   | PCT Filing Date   | U.S. Serial Numbers Assigned (if any) |                    |         |           |
|   |                   |                                       |                    |         |           |
|   |                   |                                       |                    |         |           |
|   |                   |                                       |                    |         |           |

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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